

Amendments to the Drawings:

Figures 1, 2 and 3 have been labeled “Prior Art” to agree with the specification, see the last paragraph on page 1 and the second full paragraph on page 3.

Further, the second reference number “52” in FIG. 1 has been changed to “53” to be consistent with the specification. See the first full paragraph on page 2 of the specification.

Attachments: Replacement Sheets - two

REMARKS

Claims 1 through 17 are in the case. Claims 1 through 6 and 8 through 16 are amended by this amendment.

Claims 1 through 5, 8, 14 and 15 are rejected under 35 U.S.C. §102(b) as being anticipated by Long, U.S. Patent No. 4,609,577. Claims 6, 7, 16 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Long. Claims 9 through 13 are rejected 35 U.S.C. §103(a) as being unpatentable over Ookouchi et al., U.S. Patent No. 5,571,327, in view of Long.

The claims have been amended to clarify that the component is made from an *aluminum corrosion resistant* stainless steel and further that the component is immersed in the bath of coating alloy containing aluminum.

The present patent application is distinguished from Long in that the nitrogen containing stainless steel is taught to have improved performance life in the very particular high temperature environment of molten 55% Al-Zn alloy at around 600 °C. Long teaches improved machinability, metal-to-metal wear resistance and corrosion resistance (presumably aqueous corrosion resistance) for a metal roll used in a continuous casting environment and hot-strip mill run-out tables, i.e., the rolls are exposed to high temperatures and contact with hot metal surfaces and water cooling sprays. Improved performance in such environments does not equate to improved performance in all high temperature environments, and especially in contact with molten 55% Al-Zn alloy.

It is not obvious to someone skilled in the art that a metal alloy having improved performance in one high temperature environment will also have improved performance in another high temperature environment. For instance, a metal alloy that is resistant to high

temperature corrosion (oxidation) within an oxidative atmosphere may perform very poorly within a sulphur-rich atmosphere. Contact with molten metal (such as 55% Al-Zn alloy) provides a particularly unique and aggressive high temperature environment. Finding suitable alloy compositions for service in molten metals has required extensive research and development effort. For example, Applicants know that 316L stainless steel performs much better in molten 55% Al-Zn alloy than 316 stainless steel even though it contains the same levels of the major alloying elements (Cr, Ni, Mo). This is due to small changes in the level of carbon. Improved service life results from changes in the alloying reactions that take place at the interface between the molten metal and the surface of the immersed component. These surface alloying reactions are very dependent on the composition and structure of the metal component and the composition of the molten metal alloy and the environment to which the alloyed surface is exposed.

Applicants submit that Applicants' claimed is novel in view of Long because Long does not disclose a component immersed in a molten bath of an aluminum containing alloy and does not disclose or suggest that the austenitic stainless steel filler of Long is aluminum corrosion resistant. Further, because of the difference ways materials behave in different environments, one skill in the art would not necessarily expect Long's aqueous corrosion resistant material to be resistant to aluminum corrosion when immersed in an aluminum containing molten bath.

Further, Applicants submit that Long does not necessarily disclose the nitrogen containing stainless steel of Applicants' claimed invention. What Long discloses is the combination of an austenitic stainless steel filler *and* a flux that reacts with the stainless steel filler. (col. 3, lines 9-10) At col. 6, lines 5-12, Long discloses the use of certain proprietary fluxes and admits that the composition of these fluxes is not known to Long. One skilled in the art would have to guess at what the actual composition of Long's component would be since it is the combination of a stated material and a material of unknown composition.

In view of the above, it is respectfully submitted that claims 1 through 17 are in condition for allowance. Reconsideration of the rejections is requested and allowance of the claims is solicited.

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